The practice parameter for the diagnosis and management of primary immunodeficiency defines response to pneumococcal polysaccharide vaccine as postimmunization antibody concentration of >1.3 μg/mL or a fourfold rise over baseline. Children younger than 2 years should not be given a diagnosis of SPADS, because they have a physiologic impairment of antibody production to unconjugated polysaccharide antigens. Prospective studies for a more specific definition and response to treatment are needed for patients with specific antibody deficiency and normal IgG levels.

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HUMAN IMMUNODEFICIENCY VIRUS

Immune Reconstitution Syndrome After Highly Active Antiretroviral Therapy in Human Immunodeficiency Virus-Infected Thai Children

PURPOSE OF THE STUDY. Immune reconstitution inflammatory syndrome (IRIS) is a clinical phenomenon characterized by paradoxical worsening of the clinical status of patients with HIV who receive highly active antiretroviral therapy. It is presumed that this is a result of improvement in cellular immune functions and secondary immunopathology in response to organisms that had not been recognized previously. This syndrome has been well described in adult patients. The purpose of this study was to describe IRIS after initiation of highly active antiretroviral therapy in HIV-infected children.

STUDY POPULATION AND METHODS. There were 153 HIV-infected children enrolled at initiation of antiretroviral therapy and then followed prospectively.

RESULTS. Of the 153 children, 29 (19%) experienced 32 episodes of IRIS. The median time of onset was 4 weeks after initiation of antiretroviral therapy. Fourteen episodes were caused by mycobacterial organisms, 7 by varicella-zoster virus, 7 by herpes simplex virus, 3 by Cryptococcus neoformans, and 1 by Guillain-Barré syndrome. In general, treatment was not interrupted, and only 2 patients were treated with short courses of corticosteroids. However, 3 patients died as a result of IRIS or its complications. It is important to note that patients who reactivated mycobacterial disease had substantially lower CD4+ T-cell counts at the time that their antiretroviral therapy was started, compared with patients who reactivated herpes viruses.

CONCLUSIONS. IRIS is common among HIV-infected children who initiated antiretroviral therapy in an advanced stage of HIV disease.

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PD-1 Expression on HIV-Specific T Cells Is Associated With T-Cell Exhaustion and Disease Progression

Upregulation of PD-1 Expression on HIV-Specific CD8+ T Cells Leads to Reversible Immune Dysfunction
PD-1 Expression on HIV-Specific T Cells Is Associated With T-Cell Exhaustion and Disease Progression

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